

We claim:

A process for producing foam sheets with a density of from 20 to  
5 200 g·l<sup>-1</sup> and with a cross section of at least 50 cm<sup>3</sup> by extrusion  
and foaming of a mixture made from a styrene polymer, from 3 to  
15% by weight of a volatile blowing agent and from 0.2 to 10% by  
weight of graphite particles, based in each case on the styrene  
polymer, if desired with conventional additives, which comprises  
10 using a volatile blowing agent which is a mixture made of  
from 95 to 30% by weight of CO<sub>2</sub>,  
from 5 to 70% by weight of H<sub>2</sub>O, and  
from 0 to 60% by weight of a volatile organic compound.

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